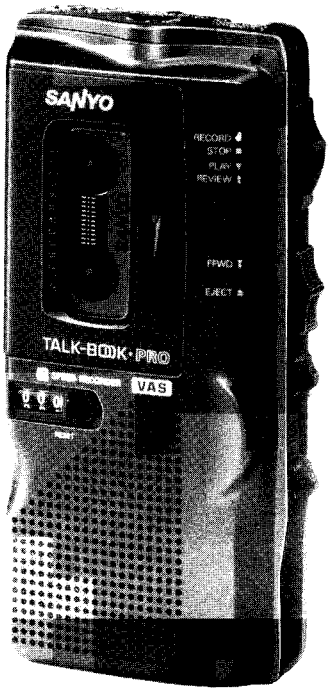
SANYO

FILE NO.

Service Manual

Microcassette Recorder

TRC-5880 (XE)
(SS)



Specifications

PRODUCT CODE No.
142 936 01 (XE)
142 936 02 (SS)

Recording system	DC bias
Erasing system	Magnet
Tape speed	2.4 cm/sec or 1.2 cm/sec
Fast forward / Rewind time	140 sec. (MC-60)
Wow & flutter	0.20 % WRMS
Frequency response	300 - 4,000 Hz
S/N ratio	30 dB (max.)

Specifications subject to change without notice.

Output power	400 mW (DC max.)
Power source	DC : 3 V, (2 size "AA" batteries)
Speaker	40 mm dia.
Terminals	Earphone jack, Ext. DC jack, Ext. MIC jack
Dimensions	60 (W) × 129 (H) × 27 (D) mm
Weight	Approx. 151 g (without batteries)

REFERENCE No. SM580204

OPERATION

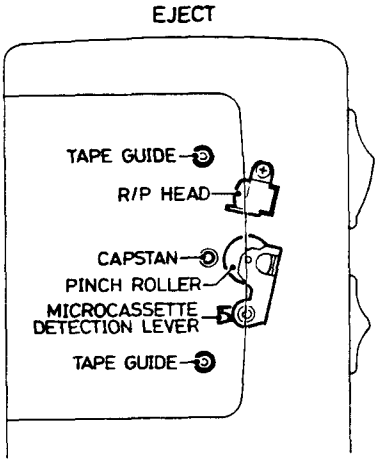
The unit employs a slide type mechanism that boasts the following features.

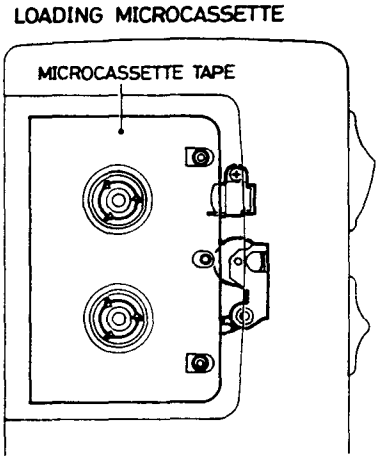
- 4-position slide-button control
- Sliding **F.FWD/EJECT** button
- One-touch recording system
- Quick **RECORD** / quick **REVIEW**

The operation button (**RECORD/STOP/PLAY/REVIEW**) can be used when a microcassette tape is loaded in the unit.
The **EJECT/F.FWD** button can be operated when the operation button is in the **STOP** position.

a. LOADING MICROCASSETTE

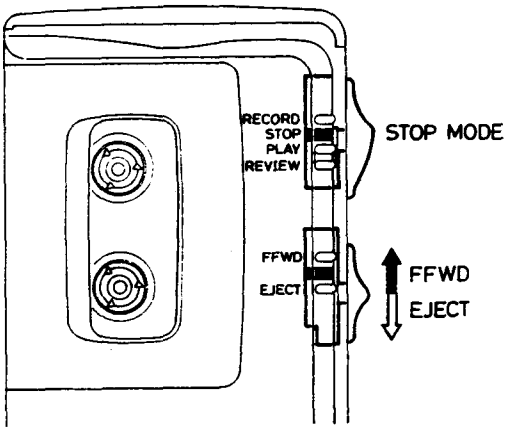
The illustration shows the position of the R/P head
and pinch roller when the unit is in eject status.
Load microcassette tape into the unit.
The microcassette detection lever is pressed upon
by the microcassette, releasing the lock.
The mechanism then enters loading (standby) status.





b. STOP MODE

The illustration shows the unit with the operation button
in the **STOP** position.
The **EJECT/F.FWD** button can be operated when the unit
is in stop status.
A safety device prevents the **EJECT/F.FWD** button from
operating when the unit is in other than stop status.

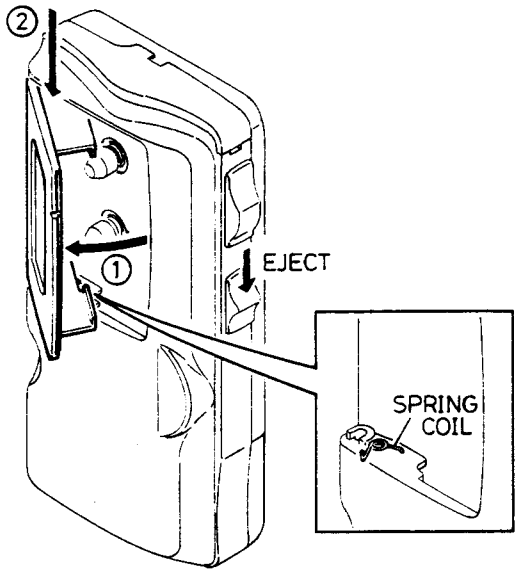


REMOVAL AND INSTALLATION

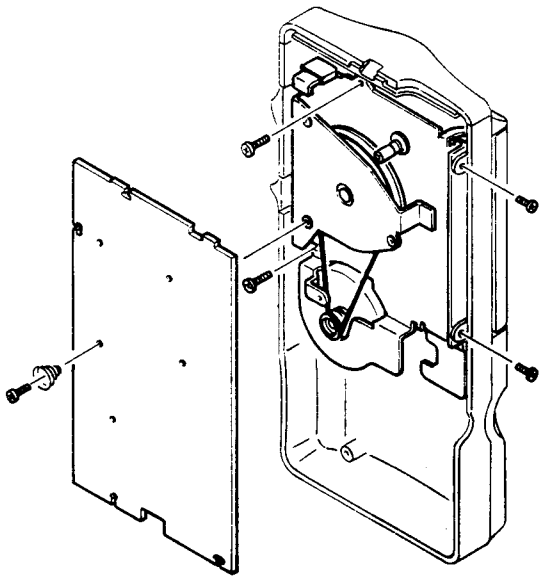
GENERAL REMARKS

- All wiring should be returned to the original position after work is completed.
- Before adjusting the mechanism of this unit, wipe the tape contacting surfaces clean as well as the contacting surfaces of the driving parts with a cotton swab or a soft cloth soaked in alcohol.
  Trouble may occur because of oil and grease stains.
- Handle the belt carefully because grease easily attaches to it.
  Then check the used rubber parts.
  If the rubber has deteriorated or is scratched, replace the parts with new one.

a. TOP LID

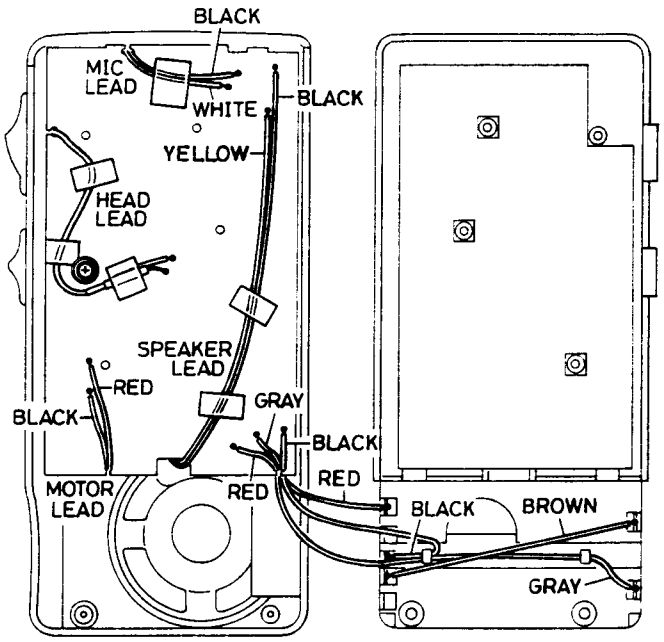


b. AMP. P.C.BOARD & MECHANISM



c. WIRING LAYOUT

- Arrange the wiring as shown in the figure.



ADJUSTMENTS

Measuring instructions, tools

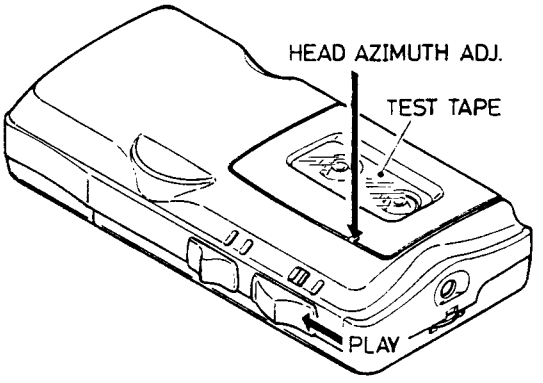
(1) AF VTVM
(2) FREQUENCY COUNTER
(3) OSCILLOSCOPE
(4) DC POWER SUPPLY ; 3.0 V
(5) DUMMY LOAD, 4 ohms
(6) TEST TAPE, HEAD AZIMUTH ; 6,300 Hz
(7) TEST TAPE, MOTOR SPEED ; 3,000 Hz

a. HEAD REPLACEMENT AND AZIMUTH ADJUSTMENT

- TAPE SPEED select switch: 2.4 cm

(a) Head replacement

- After replacement, demagnetize the heads by using a head eraser.
- Be sure to clean the heads before attempting to make any adjustments.

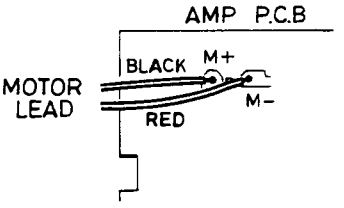


(b) Head azimuth adjustment

(1) Load the test tape (OA-431, etc. ; 6,300 Hz) for azimuth adjustment.
(2) Press the PLAY button.
(3) Use a cross-tip (+) screwdriver to turn the screw for azimuth adjustment so that the outputs maximized.
(4) After completion of the adjustment, use threadlock (TB-1401B) to secure the azimuth adjustment screw.

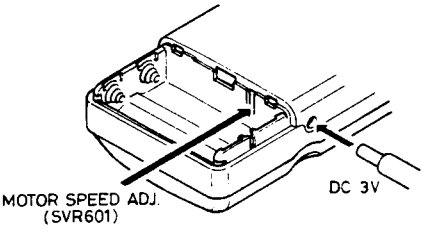
b. MOTOR REPLACEMENT AND SPEED ADJUSTMENT

(a) Motor replacement



(b) Motor speed adjustment

(1) Load the test tape (OA-W411, etc., 3,000Hz).
(2) Press the PLAY button.
(3) Use a cross-tip (+) screwdriver to turn the SVR601 to adjust so that the frequency counter becomes 3,000 Hz.



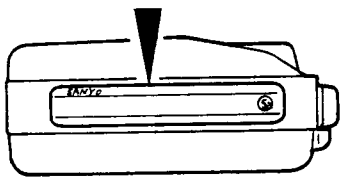
c. CHECKING THE MECHANISM TORQUE AND TENSION

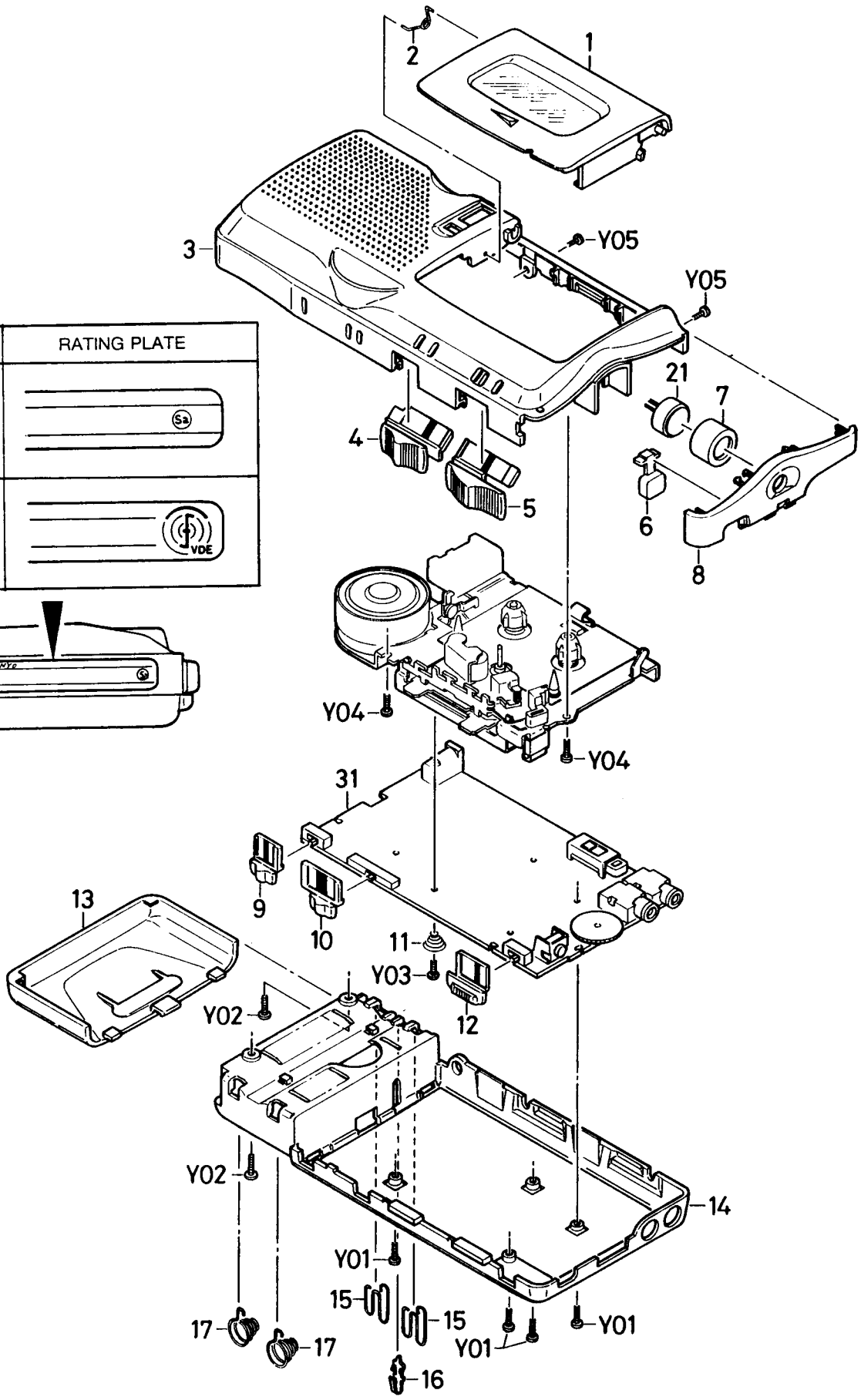
- Clean the head, capstan and pinch roller before measurement.

Measuring item	Take-up torque	Back tension	Tape tension
Cassette for measurement	PLAY:TW-1111 F.FWD / REW: TW-1231A	PLAY:TW-1111	Driving power cassette TW-1422
PLAY	4 ~12 gr·cm	0.6 ~ 3.0 gr·cm	30 gr (MIN.)
F. FWD	30 ~ 150 gr.cm	-	-
REW	25 ~ 60 gr.cm	-	-

EXPLODED VIEW (CABINET & CHASSIS)

DESTINATION	RATING PLATE
SS (GENERAL)	
XE (EUROPE)	





PARTS LIST

CAUTION: Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.
DESTINATION ..... (XE) : EUROPE, (SS) : GENERAL

PACKING & ACCESSORIES

Ref. No.	Part No.	Description
	614 255 8188	INNER CARTON (XE)
	614 255 8195	INNER CARTON (SS)
	614 176 1190	INNER POLYE COVER,SET
	614 253 1372	SHEET,SET
	614 252 8662	INSTRUCTION MANUAL (XE) (ENGLISH/GERMAN,ETC.)
	614 252 8679	INSTRUCTION MANUAL (XE) (ITALIAN/PORTUGUESE,ETC.)
	614 252 8686	INSTRUCTION MANUAL (SS) (ENGLISH/GERMAN,ETC.)
	614 252 8693	INSTRUCTION MANUAL (SS) (ITALIAN/PORTUGUESE,ETC.)
	614 251 2104	CARRYING CASE,SET

FIXING PARTS

Ref. No.	Part No.	Description
Y01	411 156 4802	SCR S-TPG PAN PCS 1.4X6MM, BACK-PCB-MECHANISM
Y02	411 155 3905	SCR S-TPG PAN PCS 1.7X6MM, BACK-CABINET
Y03	411 156 4703	SCR S-TPG PAN PCS 1.4X4MM, PCB-MECHANISM
Y04	411 155 3905	SCR S-TPG PAN PCS 1.7X6MM, MECHANISM-CABINET
Y05	411 156 4604	SCR S-TPG PAN PCS 1.4X4MM, MECHANISM-CABINET

ELECTRICAL

Ref. No.	Part No.	Description
21	614 247 8684	MICROPHONE

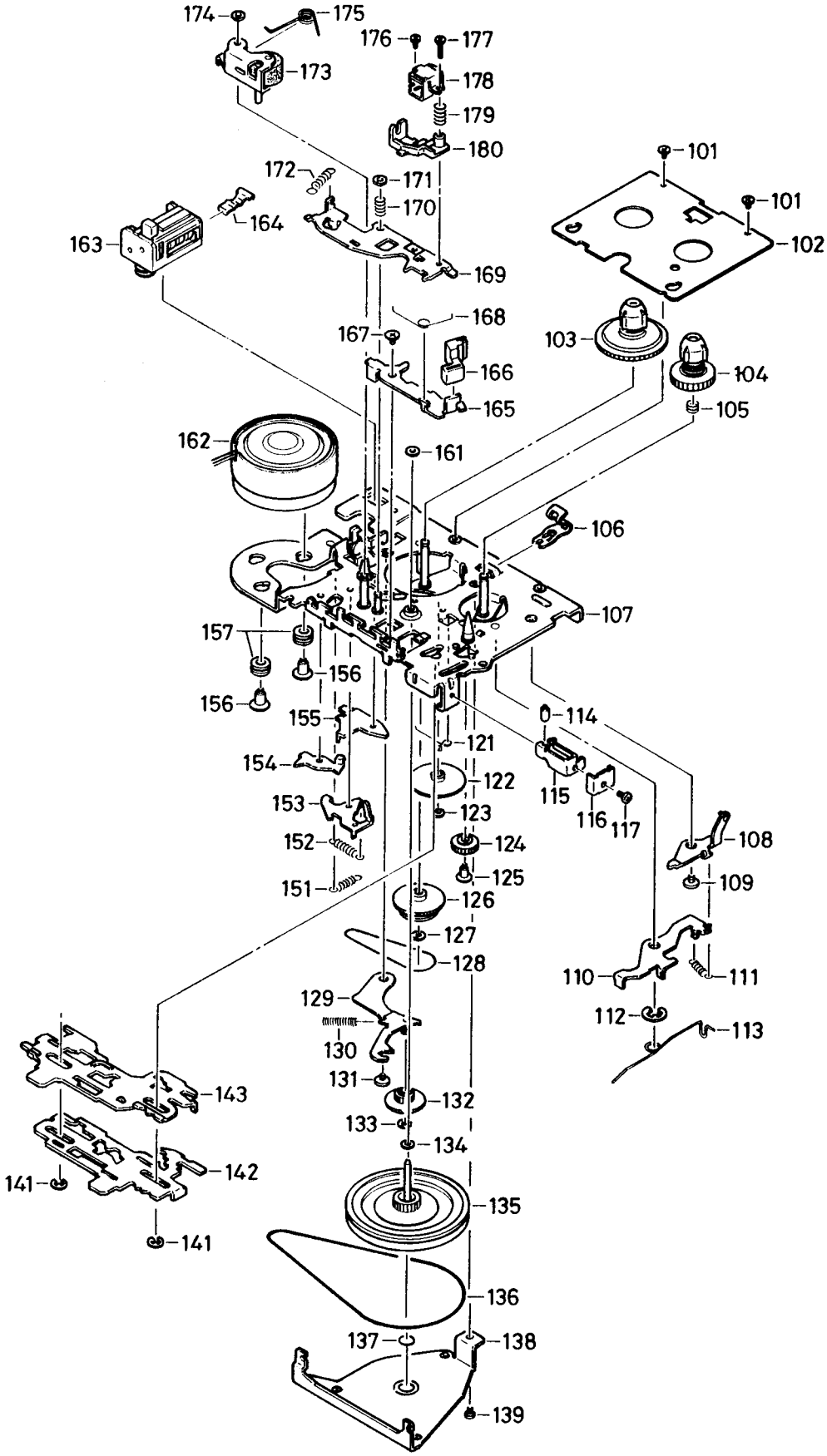
CABINET & CHASSIS

Ref. No.	Part No.	Description
1	614 255 6054	ASSY,LID,CASSETTE
2	614 252 6682	SPRING,TORSION,TOP-CABINET
3	614 256 5605	ASSY,CABINET(WITH SPEAKER) (XE)
	614 256 5612	ASSY,CABINET(WITH SPEAKER) (SS)
4	614 250 2914	ASSY,KNOB,SLIDE,F.FWD/EJECT
5	614 250 2907	ASSY,KNOB,SLIDE, RECORD/STOP/PLAY/REVIEW
6	614 255 6177	BUTTON,CUE INDEX
7	614 248 1660	CUSHION,RUBBER,MIC
8	614 249 5094	ESCUTCHEON,MIC
9	614 250 2938	ASSY,KNOB,SLIDE,VAS
10	614 250 2921	ASSY,KNOB,SLIDE,SPEED
11	614 249 0297	SPRING,COMP,SHIELD,GROUND
12	614 255 6085	ASSY,KNOB,SLIDE,SAFETY
13	614 255 6146	LID,BATTERY
14	614 255 6023	ASSY,CABINET,REAR
15	614 254 6765	TERMINAL,(+)
16	614 248 1622	TERMINAL,(GND)
17	614 248 1608	TERMINAL,(-)
	614 255 3343	SHEET,8x28x0.5MM,SPEAKER
	614 125 1660	CUSHION,10X20MM,SPEAKER
	614 125 0236	CUSHION,5X15MM,CABINET,REAR
	614 125 0151	CUSHION,LID,BATTERY

AMP. P.C.BOARD ASSY

Ref. No.	Part No.	Description
31	614 250 1702	ASSY,PCB,AMP.
C914	403 263 4806	POLYESTER 0.033U M 50V
C916	403 062 1303	POLYESTER 0.047U M 50V
CN901	620 196 7104	JACK,3P,EARPHONE
CN902	620 196 7104	JACK,3P,EXT MIC
CN903	614 248 1226	JACK,EXT DC
D901	407 116 6504	LED SLP-181B-51,OPR BATT
D904	407 053 8708	ZENER DIODE MTZ9.1A
IC901	409 245 5106	IC LA4167M
R602	401 155 7201	MT-FILM 220 JQ 1/6W
R603	401 176 6405	MT-FILM 10K JH 1/6W
S901	620 195 8461	SWITCH,SLIDE,RECORD/PLAY
S902	620 016 4504	SLIDE SWITCH,VAS
S903	620 016 4504	SLIDE SWITCH,SAFETY LOCK
S904	620 016 5990	SLIDE SWITCH,TAPE SPEED
S905	614 215 9828	SWITCH,TACT,CUE/TONE
S906	620 016 2845	LEAF SWITCH,POWER
S907	614 249 5360	TERMINAL,FF/REW SWITCH
VR601	614 250 7711	POTENTIOMETER,1K OHM
VR901	614 250 1900	VR,ROTARY,VOLUME,10K
	614 249 5346	MOUNT-E,LED

EXPLODED VIEW (MECHANISM)

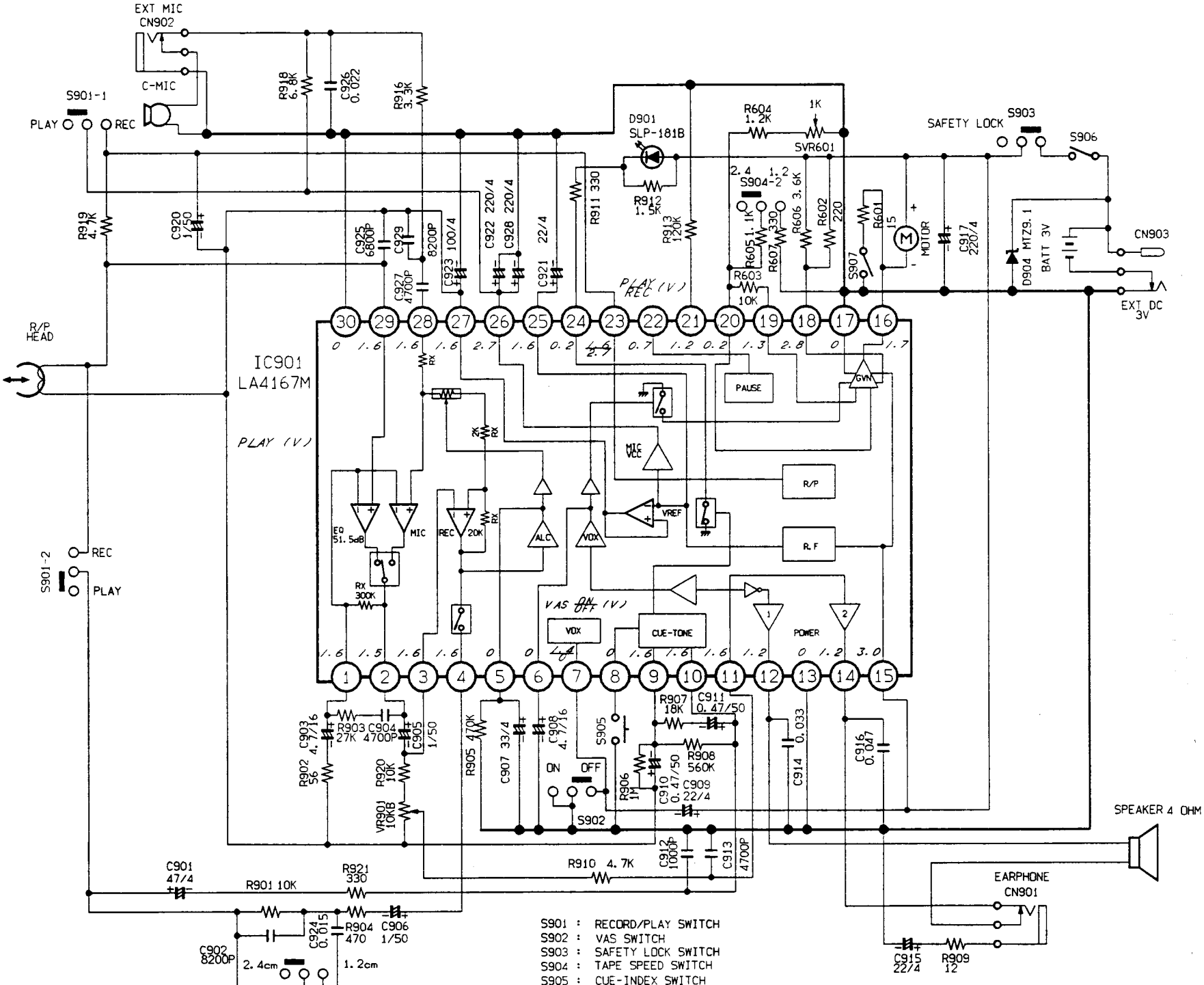


PARTS LIST

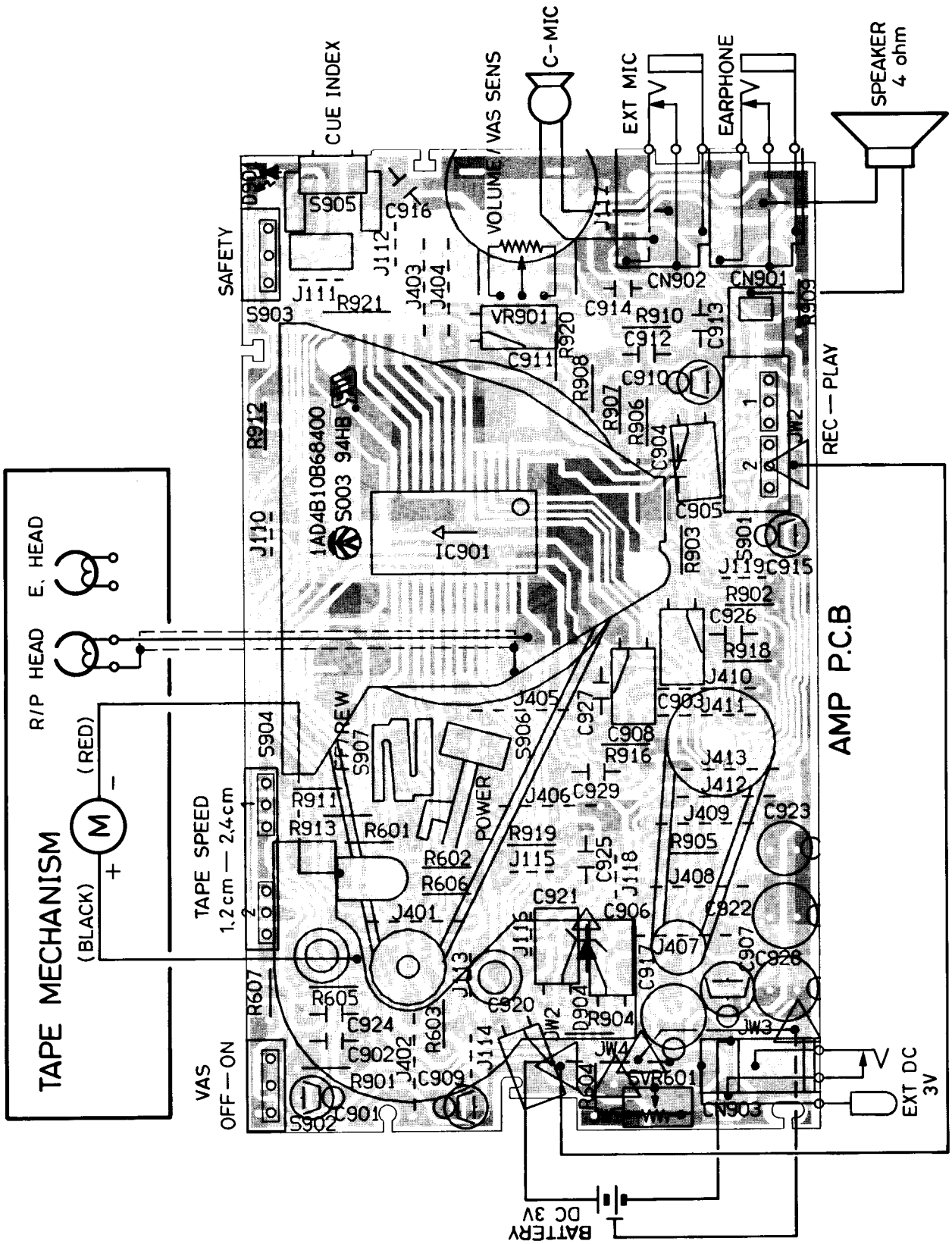
MECHANISM (TM-T5880 MEC/SH)

Ref. No.	Part No.	Description
101	412 047 6905	SPECIAL SCREW,1.4X1.6MM
102	614 253 5325	ESCUTCHEON,MECHANISM COVER
103	✓614 251 0827	ASSY,REEL,TAKE-UP
104	✗614 251 0834	ASSY,REEL,SUPPLY
105	614 253 5622	SPRING,COMP,BACK TENTION
106	614 250 9623	SPRING,PLATE,CASSETTE
107	614 253 7046	ASSY,CHASSIS,MAIN
108	614 253 5479	LEVER,RECORD SAFETY
109	412 047 1009	SPECIAL SCREW
110	614 253 5486	LEVER,RECORD ARM
111	614 253 5585	SPRING,TENSION,REC SAFETY
112	412 047 5700	SPECIAL WASHER, "E" RING,2.5MM
113	614 253 5660	SPRING WIRE,REC ARM
114	614 253 5578	ROLLER,LOCK
115	614 253 5653	SPRING,PLATE,LEVER
116	614 253 5387	HOLDER,SPRING
117	412 047 6004	SPECIAL SCREW,1.4X2MM
121	614 253 5677	SPRING WIRE,FR PLATE SPRING
122	614 250 9357	GEAR,CENTER
123	412 047 5809	SPECIAL WASHER,1.6X3X0.25MM, POLY CUT WASHER
124	614 250 9371	GEAR,REW
125	614 250 9319	BOSS,STUD REW GEAR SCREW
126	614 253 5400	GEAR,COUNTER
127	412 047 6400	SPECIAL WASHER,1.6X3X0.25MM POLY CUT WASHER
128	✗614 253 5448	BELT,SQUARE,COUNTER
129	614 253 7077	ASSY,LEVER,FWD ARM
130	614 253 6728	SPRING,COMP,FWD ARM
131	412 047 1009	SPECIAL SCREW
132	614 250 9388	GEAR,FWD
133	412 047 5809	SPECIAL WASHER, 1.6X3X0.25MM, POLY CUT WASHER
134	410 247 6103	SPECIAL WASHER, 1.6X3X0.3MM, POLY WASHER
135	614 253 5417	FLYWHEEL
136	✓614 253 5431	BELT,SQUARE,MAIN
137	614 253 5370	SUPPORT,FLYWHEEL
138	614 253 5363	SUPPORT,FLYWHEEL,HOLDER
139	412 047 6301	SPECIAL SCREW,1.4X1.5MM

Ref. No.	Part No.	Description
141	412 047 5908	SPECIAL WASHER, "E" RING,1.5MM
142	614 253 5561	SLIDE,LEVER RECORD/STOP/PLAY/REVIEW
143	614 253 5554	SLIDE,F.FWD/EJECT LEVER
151	614 253 5608	SPRING,TENSION,EJECT LEVER
152	614 253 5592	SPRING,TENSION,SWITCH LEVER
153	614 253 7060	ASSY,LEVER,SWITCH
154	614 253 5493	LEVER,F.FWD ARM
155	614 253 5516	LEVER,EJECT ARM
156	412 047 6806	SPECIAL SCREW,MOTOR
157	614 250 9333	CUSHION,RUBBER,MOTOR
161	412 047 6202	SPECIAL WASHER, 1.48X2.1X0.13MM, POLY WASHER,FLYWHEEL
162	✗ 614 253 6971	ASSY,MOTOR
163	614 253 5462	COUNTER,TAPE
164	614 255 7723	SPRING PLATE,TAPE COUNTER
165	614 253 5530	LEVER,ERASE HEAD BASE
166	✗614 250 9906	HEAD,ERASE
167	412 047 0903	SPECIAL SCREW,HEAD BASE
168	614 253 5684	SPRING WIRE,ERASE HEAD
169	614 253 5547	LEVER,HEAD,BASE
170	614 253 5646	SPRING,COMP, HEAD BASE SPRING "A"
171	412 047 6707	SPECIAL WASHER,1.2X3X0.5MM, LUMINER CUT WASHER
172	614 253 5615	SPRING,TENSION, HEAD BASE SPRING "B"
173	✗614 253 7053	ASSY,PINCH ROLLER ARM
174	412 047 7407	SPECIAL WASHER, 1.2X3X0.25MM,POLY CUT
175	614 253 5691	SPRING WIRE,PINCH ARM SPRING
176	412 047 6608	SPECIAL SCREW,1.4X1.5MM
177	412 047 6509	SPECIAL SCREW,1.4X6MM
178	✗614 250 9661	HEAD,RECORD/PLAY
179	614 253 5639	SPRING,COMP,AZIMUTH SPRING
180	614 253 5394	HOLDER,HEAD AZIMUTH SPACER


EXT MIC
CN902
C-MIC
S901-1
PLAY
REC
R918 6.8K
C926 0.022
R916 3.3K
D901 SLP-181B
R604 1.2K
1K
SVR601
SAFETY LOCK
S903
S906
S904-2
R912 1.5K
R911 330
R913 120K
R605 1.1K
R607 330
R606 3.6K
R602 220
R601 15
MOTOR
C917 220/4
D904 MTZ9.1
BATT 3V
CN903
EXT DC 3V
R919 4.7K
C920 1/50
C925 6800P
C929 8200P
C927 4700P
C923 100/4
C922 220/4
C928 220/4
C921 22/4
R603 10K
S907
PLAY REC (V)
R/P HEAD
IC901
LA4167M
PLAY (V)
PAUSE
GVN
MIC VCC
R/P
VREF
R. F
EQ 51.5dB
MIC
REC
20K
ALC
VOX
RX 300K
VAS ON OFF (V)
VOX
CUE-TONE
POWER
S901-2
REC
PLAY
R903 27K
C904 4700P
C903 4.7/16
C905 1/50
R902 56
R920 10K
VR901 10KB
R905 470K
C907 33/4
C908 4.7/16
S905
ON
OFF
S902
R907 18K
C911 0.47/50
R908 560K
R906 1K
C910 0.47/50
C909 22/4
C914 0.033
C916 0.047
SPEAKER 4 OHM
C912 1000P
C913 4700P
R910 4.7K
C901 47/4
R901 10K
R921 330
C924 0.015
R904 470
C906 1/50
C902 8200P
2.4cm
1.2cm
EARPHONE
CN901
C915 22/4
R909 12
S901 : RECORD/PLAY SWITCH
S902 : VAS SWITCH
S903 : SAFETY LOCK SWITCH
S904 : TAPE SPEED SWITCH
S905 : CUE-INDEX SWITCH

WIRING DIAGRAM



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SANYO Electric Co., Ltd.
Osaka, Japan